



## ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

### AIR QUALITY CLASS I, TITLE V PERMIT

**COMPANY:** *Salt River Project*  
**FACILITY:** *Coronado Generating Station*  
**PERMIT #:** *30732*  
**DATE ISSUED:** *Draft*  
**EXPIRY DATE:**

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#### SUMMARY

This Class I, Title V operating permit renewal is issued to Salt River Project (SRP), the Permittee, for operation of their Coronado Generating Station located in Apache County, six miles northeast of St. Johns, Arizona off U.S Highway 191. This is a renewal of Air Quality Permit #1000106.

SRP Coronado supplies power through two pulverized, coal-fired, dry bottom steam electric generating units. The maximum rated generating capacity of the entire plant is approximately 912 MW. Each of the steam generating units has two electrostatic precipitators and two flue gas desulfurization system for controlling particulate matter emissions and sulfur dioxide emissions, respectively. An auxiliary boiler provides auxiliary steam during startup if main boiler steam or turbine extraction steam is unavailable. The plant also consists of a main power building, coal mixing facilities, coal and ash handling facilities, ash disposal area, limestone handling equipment, process water treatment facilities, a forty-three mile railroad spur, water storage reservoirs, a 330 acre evaporation pond for non-recoverable waters, mechanically induced draft cooling towers, 500 kV and 69 kV switchyards and water supply from satellite wellfields. The power plant commenced construction on July 25, 1974.

This permit is issued in accordance with Title 49, Chapter 3 of the Arizona Revised Statutes. All definitions, terms, and conditions used in this permit conform to those in the Arizona Administrative Code R18-2-101 et. seq. (A.A.C.) and 40 Code of Federal Regulations (CFR), except as otherwise defined in this permit. All terms and conditions in this permit are enforceable by the Administrator of the U.S. Environmental Protection Agency (EPA), except those terms and conditions that are specifically identified as "State Enforceable Only."

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## **ATTACHMENT “A”: GENERAL PROVISIONS**

Air Quality Control Permit No. 30732  
for  
*Salt River Project, Coronado Generating Station*

**I. PERMIT EXPIRATION AND RENEWAL** [ARS § 49-426.F, A.A.C. R18-2-304.C.2, and -306.A.1]

- A. This permit is valid for a period of five years from the date of issuance.
- B. The Permittee shall submit an application for renewal of this permit at least 6 months, but not more than 18 months, prior to the date of permit expiration.

**II. COMPLIANCE WITH PERMIT CONDITIONS** [A.A.C. R18-2-306.A.8.a and b]

- A. The Permittee shall comply with all conditions of this permit including all applicable requirements of the Arizona air quality statutes and air quality rules. Any permit noncompliance constitutes a violation of the Arizona Revised Statutes and is grounds for enforcement action; for permit termination, revocation and reissuance, or revision; or for denial of a permit renewal application. In addition, noncompliance with any federally enforceable requirement constitutes a violation of the Clean Air Act.
- B. It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

**III. PERMIT REVISION, REOPENING, REVOCATION AND REISSUANCE, OR TERMINATION FOR CAUSE** [A.A.C. R18-2-306.A.8.c, -321.A.1, and -321.A.2]

- A. The permit may be revised, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a permit revision, revocation and reissuance, termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.
- B. The permit shall be reopened and revised under any of the following circumstances:
  - 1. Additional applicable requirements under the Clean Air Act become applicable to the Class I source. Such a reopening shall only occur if there are three or more years remaining in the permit term. The reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless an application for renewal has been submitted pursuant to A.A.C. R18-2-322.B. Any permit revision required pursuant to this subparagraph shall comply with the provisions in A.A.C. R18-2-322 for permit renewal and shall reset the five-year permit term.
  - 2. Additional requirements, including excess emissions requirements, become applicable to an affected source under the acid rain program. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the Class I

permit.

3. The Director or the Administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
  4. The Director or the Administrator determines that the permit needs to be revised or revoked to assure compliance with the applicable requirements.
- C. Proceedings to reopen and reissue a permit, including appeal of any final action relating to a permit reopening, shall follow the same procedures as apply to initial permit issuance and shall, except for reopenings under Condition III.B.1 above, affect only those parts of the permit for which cause to reopen exists. Such reopenings shall be made as expeditiously as practicable. Permit reopenings for reasons other than those stated in Condition III.B.1 above shall not result in a resetting of the five-year permit term.

#### **IV. POSTING OF PERMIT**

[A.A.C. R18-2-315]

- A. The Permittee shall post this permit or a certificate of permit issuance where the facility is located in such a manner as to be clearly visible and accessible. All equipment covered by this permit shall be clearly marked with one of the following:
1. Current permit number; or
  2. Serial number or other equipment ID number that is also listed in the permit to identify that piece of equipment.
- B. A copy of the complete permit shall be kept on site.

#### **V. FEE PAYMENT**

[A.A.C. R18-2-306.A.9 and -326]

The Permittee shall pay fees to the Director pursuant to ARS § 49-426(E) and A.A.C. R18-2-326.

#### **VI. ANNUAL EMISSION INVENTORY QUESTIONNAIRE**

[A.A.C. R18-2-327.A and B]

- A. The Permittee shall complete and submit to the Director an annual emissions inventory questionnaire. The questionnaire is due by March 31st or ninety days after the Director makes the inventory form available each year, whichever occurs later, and shall include emission information for the previous calendar year.
- B. The questionnaire shall be on a form provided by the Director and shall include the information required by A.A.C. R18-2-327.

#### **VII. COMPLIANCE CERTIFICATION**

[A.A.C. R18-2-309.2.a, -309.2.c-d, and -309.5.d]

- A. The Permittee shall submit a compliance certification to the Director semiannually, which describes the compliance status of the source with respect to each permit condition. The first certification shall be submitted no later than May 15<sup>th</sup>, and shall report the compliance status of the source during the period between October 1<sup>st</sup> of the previous year and March 31<sup>st</sup> of the current year. The second certification shall be submitted no later than November 15<sup>th</sup>, and shall report the compliance status of the source during the period between April 1<sup>st</sup> and

September 30<sup>th</sup> of the current year.

The compliance certifications shall include the following:

1. Identification of each term or condition of the permit that is the basis of the certification;
  2. Identification of the methods or other means used by the Permittee for determining the compliance status with each term and condition during the certification period.
  3. The status of compliance with the terms and conditions of this permit for the period covered by the certification, based on the methods or means designated in Condition VII.A.2 above. The certifications shall identify each deviation and take it into account for consideration in the compliance certification;
  4. For emission units subject to 40 CFR Part 64, the certification shall also identify as possible exceptions to compliance any period during which compliance is required and in which an excursion or exceedance defined under 40 CFR Part 64 occurred;
  5. All instances of deviations from permit requirements reported pursuant to Condition XII.B of this Attachment; and
  6. Other facts the Director may require to determine the compliance status of the source.
- B.** A copy of all compliance certifications shall also be submitted to the EPA Administrator.
- C.** If any outstanding compliance schedule exists, a progress report shall be submitted with the semi-annual compliance certifications required in Condition VII.A above.

#### **VIII. CERTIFICATION OF TRUTH, ACCURACY AND COMPLETENESS**

[A.A.C. R18-2-304.H]

Any document required to be submitted by this permit, including reports, shall contain a certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

#### **IX. INSPECTION AND ENTRY**

[A.A.C. R18-2-309.4]

Upon presentation of proper credentials, the Permittee shall allow the Director or the authorized representative of the Director to:

- A.** Enter upon the Permittee's premises where a source is located, emissions-related activity is conducted, or where records are required to be kept under the conditions of the permit;
- B.** Have access to and copy, at reasonable times, any records that are required to be kept under the conditions of the permit;
- C.** Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit;
- D.** Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or other applicable requirements; and

E. Record any inspection by use of written, electronic, magnetic and photographic media.

**X. PERMIT REVISION PURSUANT TO FEDERAL HAZARDOUS AIR POLLUTANT STANDARD** [A.A.C. R18-2-304.C]

If this source becomes subject to a standard promulgated by the Administrator pursuant to Section 112(d) of the Act, then the Permittee shall, within twelve months of the date on which the standard is promulgated, submit an application for a permit revision demonstrating how the source will comply with the standard.

**XI. ACCIDENTAL RELEASE PROGRAM** [40 CFR Part 68]

If this source becomes subject to the provisions of 40 CFR Part 68, then the Permittee shall comply with these provisions according to the time line specified in 40 CFR Part 68.

**XII. EXCESS EMISSIONS, PERMIT DEVIATIONS, AND EMERGENCY REPORTING**

**A. Excess Emissions Reporting** [A.A.C. R18-2-310.01.A and -310.01.B]

1. Excess emissions shall be reported as follows:

a. The Permittee shall report to the Director any emissions in excess of the limits established by this permit. Such report shall be in two parts as specified below:

- (1) Notification by telephone or facsimile within 24 hours of the time when the Permittee first learned of the occurrence of excess emissions including all available information from Condition XII.A.1.b below.
- (2) Detailed written notification by submission of an excess emissions report within 72 hours of the notification pursuant to Condition XII.A.1.a.(1) above.

b. The report shall contain the following information:

- (1) Identity of each stack or other emission point where the excess emissions occurred;
- (2) Magnitude of the excess emissions expressed in the units of the applicable emission limitation and the operating data and calculations used in determining the magnitude of the excess emissions;
- (3) Date, time and duration, or expected duration, of the excess emissions;
- (4) Identity of the equipment from which the excess emissions emanated;
- (5) Nature and cause of such emissions;
- (6) If the excess emissions were the result of a malfunction, steps taken to remedy the malfunction and the steps taken or planned to prevent the recurrence of such malfunctions; and

- (7) Steps taken to limit the excess emissions. If the excess emissions resulted from start-up or malfunction, the report shall contain a list of the steps taken to comply with the permit procedures.
2. In the case of continuous or recurring excess emissions, the notification requirements of this section shall be satisfied if the source provides the required notification after excess emissions are first detected and includes in such notification an estimate of the time the excess emissions will continue. Excess emissions occurring after the estimated time period, or changes in the nature of the emissions as originally reported, shall require additional notification pursuant to Condition XII.A.1 above.

[A.A.C. R18-2-310.01.C]

## **B. Permit Deviations Reporting**

[A.A.C. R18-2-306.A.5.b]

The Permittee shall promptly report deviations from permit requirements, including those attributable to upset conditions as defined in the permit, the probable cause of such deviations, and any corrective actions or preventive measures taken. A report submitted to the Director by certified mail, facsimile, or hand delivery within two working days of the time the deviation occurred shall be considered prompt

## **C. Emergency Provision**

[A.A.C. R18-2-306.E]

1. An “emergency” means any situation arising from sudden and reasonable unforeseeable events beyond the control of the source, including acts of God, that require immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.
2. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if Condition XII.C.3 is met.
3. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:
  - a. An emergency occurred and that the Permittee can identify the cause(s) of the emergency;
  - b. The permitted facility was being properly operated at the time;
  - c. During the period of the emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and
  - d. The Permittee submitted notice of the emergency to the Director by certified mail, facsimile, or hand delivery within two working days of the time when emission limitations were exceeded due to the emergency. This notice shall contain a description of the emergency, any steps taken to mitigate emissions, and corrective action taken.

4. In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
5. This provision is in addition to any emergency or upset provision contained in any applicable requirement.

**D. Compliance Schedule**

[ARS § 49-426.I.5]

For any excess emission or permit deviation that cannot be corrected within 72 hours, the Permittee is required to submit a compliance schedule to the Director within 21 days of such occurrence. The compliance schedule shall include a schedule of remedial measures, including an enforceable sequence of actions with milestones, leading to compliance with the permit terms or conditions that have been violated.

**E. Affirmative Defenses for Excess Emissions Due to Malfunctions, Startup, and Shutdown**  
[A.A.C. R18-2-310]

1. Applicability

This rule establishes affirmative defenses for certain emissions in excess of an emission standard or limitation and applies to all emission standards or limitations except for standards or limitations:

- a. Promulgated pursuant to Sections 111 or 112 of the Act;
- b. Promulgated pursuant to Titles IV or VI of the Clean Air Act;
- c. Contained in any Prevention of Significant Deterioration (PSD) or New Source Review (NSR) permit issued by the U.S. EPA;
- d. Contained in A.A.C. R18-2-715.F; or
- e. Included in a permit to meet the requirements of A.A.C. R18-2-406.A.5.

2. Affirmative Defense for Malfunctions

Emissions in excess of an applicable emission limitation due to malfunction shall constitute a violation. When emissions in excess of an applicable emission limitation are due to a malfunction, the Permittee has an affirmative defense to a civil or administrative enforcement proceeding based on that violation, other than a judicial action seeking injunctive relief, if the Permittee has complied with the reporting requirements of A.A.C. R18-2-310.01 and has demonstrated all of the following:

- a. The excess emissions resulted from a sudden and unavoidable breakdown of process equipment or air pollution control equipment beyond the reasonable control of the Permittee;
- b. The air pollution control equipment, process equipment, or processes were at all times maintained and operated in a manner consistent with good practice for minimizing emissions;



- c. If repairs were required, the repairs were made in an expeditious fashion when the applicable emission limitations were being exceeded. Off-shift labor and overtime were utilized where practicable to ensure that the repairs were made as expeditiously as possible. If off-shift labor and overtime were not utilized, the Permittee satisfactorily demonstrated that the measures were impracticable;
- d. The amount and duration of the excess emissions (including any bypass operation) were minimized to the maximum extent practicable during periods of such emissions;
- e. All reasonable steps were taken to minimize the impact of the excess emissions on ambient air quality;
- f. The excess emissions were not part of a recurring pattern indicative of inadequate design, operation, or maintenance;
- g. During the period of excess emissions there were no exceedances of the relevant ambient air quality standards established in Title 18, Chapter 2, Article 2 of the Arizona Administrative Code that could be attributed to the emitting source;
- h. The excess emissions did not stem from any activity or event that could have been foreseen and avoided, or planned, and could not have been avoided by better operations and maintenance practices;
- i. All emissions monitoring systems were kept in operation if at all practicable; and
- j. The Permittee's actions in response to the excess emissions were documented by contemporaneous records

### 3. Affirmative Defense for Startup and Shutdown

- a. Except as provided in Condition XII.E.3.b below, and unless otherwise provided for in the applicable requirement, emissions in excess of an applicable emission limitation due to startup and shutdown shall constitute a violation. When emissions in excess of an applicable emission limitation are due to startup and shutdown, the Permittee has an affirmative defense to a civil or administrative enforcement proceeding based on that violation, other than a judicial action seeking injunctive relief, if the Permittee has complied with the reporting requirements of A.A.C. R18-2-310.01 and has demonstrated all of the following:
  - (1) The excess emissions could not have been prevented through careful and prudent planning and design;
  - (2) If the excess emissions were the result of a bypass of control equipment, the bypass was unavoidable to prevent loss of life, personal injury, or severe damage to air pollution control equipment, production equipment, or other property;
  - (3) The air pollution control equipment, process equipment, or processes were at all times maintained and operated in a manner consistent with good practice for minimizing emissions;

- (4) The amount and duration of the excess emissions (including any bypass operation) were minimized to the maximum extent practicable during periods of such emissions;
  - (5) All reasonable steps were taken to minimize the impact of the excess emissions on ambient air quality;
  - (6) During the period of excess emissions there were no exceedances of the relevant ambient air quality standards established in Title 18, Chapter 2, Article 2 of the Arizona Administrative Code that could be attributed to the emitting source;
  - (7) All emissions monitoring systems were kept in operation if at all practicable; and
  - (8) Contemporaneous records documented the Permittee's actions in response to the excess emissions.
- b. If excess emissions occur due to a malfunction during routine startup and shutdown, then those instances shall be treated as other malfunctions subject to Condition XII.E.2 above.

4. Affirmative Defense for Malfunctions During Scheduled Maintenance

If excess emissions occur due to a malfunction during scheduled maintenance, then those instances will be treated as other malfunctions subject to Condition XII.E.2 above.

5. Demonstration of Reasonable and Practicable Measures

For an affirmative defense under Condition XII.E.2 or XII.E.3 above, the Permittee shall demonstrate, through submission of the data and information required by Condition XII.E and A.A.C. R18-2-310.01, that all reasonable and practicable measures within the Permittee's control were implemented to prevent the occurrence of the excess emissions.

### **XIII. RECORD KEEPING REQUIREMENTS**

[A.A.C. R18-2-306.A.4]

- A.** The Permittee shall keep records of all required monitoring information including, but not limited to, the following:
- 1. The date, place as defined in the permit, and time of sampling or measurements;
  - 2. The date(s) analyses were performed;
  - 3. The name of the company or entity that performed the analyses;
  - 4. A description of the analytical techniques or methods used;
  - 5. The results of such analyses; and

6. The operating conditions as existing at the time of sampling or measurement.
- B.** The Permittee shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings or other data recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.
- C.** All required records shall be maintained either in an unchangeable electronic format or in a handwritten logbook utilizing indelible ink.

#### **XIV. REPORTING REQUIREMENTS**

[A.A.C. R18-2-306.A.5.a]

The Permittee shall submit the following reports:

- A.** Compliance certifications in accordance with Section VII of Attachment “A”.
- B.** Excess emission; permit deviation, and emergency reports in accordance with Section XII of Attachment “A”.
- C.** Other reports required by any condition of Attachment “B”.

#### **XV. DUTY TO PROVIDE INFORMATION**

[A.A.C. R18-2-304.G and -306.A.8.e]

- A.** The Permittee shall furnish to the Director, within a reasonable time, any information that the Director may request in writing to determine whether cause exists for revising, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. Upon request, the Permittee shall also furnish to the Director copies of records required to be kept by the permit. For information claimed to be confidential, the Permittee shall furnish an additional copy of such records directly to the Administrator along with a claim of confidentiality.
- B.** If the Permittee has failed to submit any relevant facts or has submitted incorrect information in the permit application, the Permittee shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information.

#### **XVI. PERMIT AMENDMENT OR REVISION**

[A.A.C. R18-2-318, -319, and -320]

The Permittee shall apply for a permit amendment or revision for changes to the facility which do not qualify for a facility change without revision under Section XVII, as follows:

- A.** Administrative Permit Amendment (A.A.C. R18-2-318);
- B.** Minor Permit Revision (A.A.C. R18-2-319); and
- C.** Significant Permit Revision (A.A.C. R18-2-320).

The applicability and requirements for such action are defined in the above referenced regulations.

#### **XVII. FACILITY CHANGE WITHOUT A PERMIT REVISION**

[A.A.C. R18-2-306.A.4 and -317]

- A.** The Permittee may make changes at the permitted source without a permit revision if all of the following apply:
1. The changes are not modifications under any provision of Title I of the Act or under ARS § 49-401.01(19);
  2. The changes do not exceed the emissions allowable under the permit whether expressed therein as a rate of emissions or in terms of total emissions;
  3. The changes do not violate any applicable requirements or trigger any additional applicable requirements;
  4. The changes satisfy all requirements for a minor permit revision under A.A.C.-R18-2-319.A; and
  5. The changes do not contravene federally enforceable permit terms and conditions that are monitoring (including test methods), record keeping, reporting, or compliance certification requirements.
- B.** The substitution of an item of process or pollution control equipment for an identical or substantially similar item of process or pollution control equipment shall qualify as a change that does not require a permit revision, if it meets all of the requirements of Conditions XVII.A and XVII.C of this Attachment.
- C.** For each change under Conditions XVII.A and XVII.B above, a written notice by certified mail or hand delivery shall be received by the Director and the Administrator a minimum of 7 working days in advance of the change. Notifications of changes associated with emergency conditions, such as malfunctions necessitating the replacement of equipment, may be provided less than 7 working days in advance of the change, but must be provided as far in advance of the change, as possible or, if advance notification is not practicable, as soon after the change as possible.
- D.** Each notification shall include:
1. When the proposed change will occur;
  2. A description of the change;
  3. Any change in emissions of regulated air pollutants; and
  4. Any permit term or condition that is no longer applicable as a result of the change.
- E.** The permit shield described in A.A.C. R18-2-325 shall not apply to any change made under this Section, other than implementation of an alternate to Conditions XVII.A and XVII.B above.
- F.** Except as otherwise provided for in the permit, making a change from one alternative operating scenario to another as provided under A.A.C. R18-2-306.A.11 shall not require any prior notice under this Section.

- G. Notwithstanding any other part of this Section, the Director may require a permit to be revised for any change that, when considered together with any other changes submitted by the same source under this Section over the term of the permit, do not satisfy Condition XVII.A above.

## **XVIII. TESTING REQUIREMENTS**

[A.A.C. R18-2-312]

- A. The Permittee shall conduct performance tests as specified in the permit and at such other times as may be required by the Director.

**B. Operational Conditions During Testing**

Tests shall be conducted during operation at the maximum possible capacity of each unit under representative operational conditions unless other conditions are required by the applicable test method or in this permit. With prior written approval from the Director, testing may be performed at a lower rate. Operations during periods of start-up, shutdown, and malfunction (as defined in A.A.C. R18-2-101 and 40 CFR 60.8) shall not constitute representative operational conditions unless otherwise specified in the applicable standard.

- C. Tests shall be conducted and data reduced in accordance with the test methods and procedures contained in the Arizona Testing Manual unless modified by the Director pursuant to A.A.C. R18-2-312.B.

**D. Test Plan**

At least 14 calendar days prior to performing a test, the Permittee shall submit a test plan to the Director in accordance with A.A.C. R18-2-312.B and the Arizona Testing Manual. This test plan must include the following:

1. Test duration;
2. Test location(s);
3. Test method(s); and
4. Source operation and other parameters that may affect test results.

**E. Stack Sampling Facilities**

The Permittee shall provide, or cause to be provided, performance testing facilities as follows:

1. Sampling ports adequate for test methods applicable to the facility;
2. Safe sampling platform(s);
3. Safe access to sampling platform(s); and
4. Utilities for sampling and testing equipment.

**F. Interpretation of Final Result**

Each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic mean of the results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs is required to be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond the Permittee's control, compliance may, upon the Director's approval, be determined using the arithmetic mean of the results of the other two runs. If the Director or the Director's designee is present, tests may only be stopped with the Director's or such designee's approval. If the Director or the Director's designee is not present, tests may only be stopped for good cause. Good cause includes: forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond the Permittee's control. Termination of any test without good cause after the first run is commenced shall constitute a failure of the test. Supporting documentation, which demonstrates good cause, must be submitted.

#### **G. Report of Final Test Results**

A written report of the results of all performance tests shall be submitted to the Director within 30 days after the test is performed. The report shall be submitted in accordance with the Arizona Testing Manual and A.A.C. R18-2-312.A.

### **XIX. PROPERTY RIGHTS**

[A.A.C. R18-2-306.A.8.d]

This permit does not convey any property rights of any sort, or any exclusive privilege.

### **XX. SEVERABILITY CLAUSE**

[A.A.C. R18-2-306.A.7]

The provisions of this permit are severable. In the event of a challenge to any portion of this permit, or if any portion of this permit is held invalid, the remaining permit conditions remain valid and in force.

### **XXI. PERMIT SHIELD**

[A.A.C. R18-2-325]

Compliance with the conditions of this permit shall be deemed compliance with all applicable requirements identified in the portions of this permit subtitled "Permit Shield". The permit shield shall not apply to minor revisions pursuant to Condition XVI.B of this Attachment and any facility changes without a permit revision pursuant to Section XVII of this Attachment.

### **XXII. PROTECTION OF STRATOSPHERIC OZONE**

[40 CFR Part 82]

If this source becomes subject to the provisions of 40 CFR Part 82, then the Permittee shall comply with these provisions accordingly.

### **XXIII. NSPS**

[40 CFR Part 60]

For all equipment subject to a New Source Performance Standard, the Permittee shall comply with all applicable requirements contained in Subpart A of Title 40, Chapter 60 of the Code of Federal Regulations.

#### **XXIV. ACID RAIN**

- A.** When provisions or requirements of the regulations incorporated pursuant to A.A.C. R18-2-333.A (Acid Rain) conflict with any of the applicable requirements, the regulations incorporated by A.A.C. R18-2-333.A shall apply and take precedence. [A.A.C. R18-2-333]
- B.** No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to acid rain program, provided that such increases do not require a permit revision under any other applicable requirement. [A.A.C. R18-2-306.A.6.a]
- C.** No limit shall be place on the number of allowances held by the source. The source may not, however, use allowances as defense to noncompliance with any other applicable requirement. [A.A.C. R18-2-306.A.6.c]
- D.** Any such allowance shall be accounted for according to the procedures established in regulations promulgated under Title IV of the Act. [A.A.C. R18-2-306.A.6.c]
- E.** All of the following are prohibited: [A.A.C. R18-2-306.A.6.d]

  - 1. Annual emissions of sulfur dioxide in excess of the number of allowances to emit sulfur dioxide held by the owners of the operations of the unit or the designed representative of the owners or the operators as of the applicable allowance transfer deadline;
  - 2. Exceedances of applicable emissions rates;
  - 3. The use of any allowance prior to the year for which it was allocated; and
  - 4. Contravention of any other provision of the permit.

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## ATTACHMENT “B”: SPECIFIC CONDITIONS

Air Quality Control Permit No. 30732  
for  
*Salt River Project, Coronado Generating Station*

### I. FACILITY WIDE LIMITATIONS

- A. The Permittee shall have on site or on call a person that is certified in EPA Reference Method 9. [A.A.C. R18-2-306.A.3.c]
- B. At the time the compliance certifications required by Section VII of Attachment “A” are submitted, the Permittee shall submit reports of all monitoring activities required by Attachment “B” performed during the six month compliance term. [A.A.C. R18-2-306.A.5.a]
- C. Permittee shall record any change in fuel type including: [A.A.C. R18-2-306.A.3.c]
1. Type of fuel change;
  2. Date of the fuel change; and
  3. Time of the fuel change.
- D. Permittee shall maintain a log of all adjustments, replacements, and maintenance performed on all air pollution control equipment. [Permit #1000106, Attachment B, Condition III.D]
- E. Where specified in this Attachment, a certified EPA Reference Method 9 observer shall conduct a biweekly (once every two weeks) survey of visible emissions. If the opacity of the emissions observed appears to exceed the relevant opacity standard, the observer shall conduct a certified EPA Reference Method 9 observation. The Permittee shall keep records of the initial survey and any EPA Reference Method 9 observations performed. These records shall include the emission point observed, location of observer, name of observer, date and time of observation, and the results of the observation. If the observation shows a Method 9 opacity reading in excess of the relevant opacity standard, the Permittee shall initiate appropriate corrective action to reduce the opacity below the standard. The Permittee shall keep a record of the corrective action performed.[A.A.C. R18-2-306.A.3.c]

### II. UNIT 1 AND UNIT 2 BOILERS

#### A. Applicability

This section applies to the Unit 1 and 2 boilers as described in Attachment “C” of this permit.

#### B. Operating Limitations

##### 1. Fuel Limitation

Permittee shall burn only the following as fuel in the units:

- a. Coal;

- b. Fuel Oil (Number 2 fuel oil, and subject to Section IX of this Attachment);
- c. Co-firing of coal and Number 2 fuel oil; and
- d. Co-firing of coal and used oil fuel subject to Section IX of this Attachment. [Permit #1000106, Attachment B, Condition I.A.5]

2. Permittee shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by this section recorded in a permanent form suitable for inspection. The file shall be retained for at least five years following the date of such measurements, maintenance, reports and records. [40 CFR 60.7(f)]

3. Permittee shall calibrate, maintain, and operate continuous monitoring systems for measuring the opacity of emissions, sulfur dioxide emissions, nitrogen oxides emissions, and carbon dioxide. [40 CFR 60.45(a) and R18-2-331]

#### 4. Excess Emissions and Monitoring System Performance (MSP) Reports

a. Excess emission and monitoring system performance (MSP) reports for Units 1 and 2 shall be submitted to the Department and EPA Region IX semi-annually for each six-month period in the calendar year. All semiannual reports shall be postmarked by the 30<sup>th</sup> day following the end of each six-month period. Each excess emissions and MSP report shall include occurrences of excess emissions as defined in Sections II.C.3.e, II.C.3.f, II.D.3.b, and II.F.3.c. Periods of excess emissions and monitoring systems (MS) downtime that shall be reported are also defined in the Sections mentioned above. [40 CFR 60.45(g)]

b. The summary semi-annual report form submission required in Section II.B.4.a above shall be in the format specified in 40 CFR 60.7(d). The excess emissions report shall include the following information: [40 CFR 60.7(c)]

- (1) The magnitude of excess emissions computed, any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions. The process operating time during the reporting period.
- (2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted.
- (3) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero

and span checks and the nature of the system repairs or adjustments.

- (4) When no excess emissions have occurred or the continuous monitoring systems have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

- c. In addition to 4.a and 4.b above, Permittee shall report emissions exceeding an emission limitation or standard as deviations in accordance with Section XII.B of Attachment "A" of this permit.

[A.A.C. R18-2-306.A.5.b]

5. Startup, Shutdown, and Malfunction

- a. The Permittee shall maintain records of the occurrence and duration of each startup, shutdown, or malfunction in the operation of the Unit 1 and Unit 2 boilers; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.

[40 CFR 60.7(b)]

b. Startup

Startup means the setting into operation of Coronado Generating Station (CGS) Unit 1 or Unit 2. The startup sequence begins with the start of CGS Unit 1 or Unit 2 induced draft fans. Startup activities include, but are not limited to, all operations and maintenance activities, fuel changes, temperature related holding periods and delays related to equipment or system requirements.

[40 CFR 60.11(d)]

c. Shutdown

Shutdown means the cessation of operation of Coronado Generating Station (CGS) Unit 1 or Unit 2.

[40 CFR 60.11(d)]

d. Malfunction

Malfunction means any sudden and unavoidable failure of air pollution control equipment, process equipment or failure of a process to operate in a normal and usual manner, but does not include failures that are caused by poor maintenance, careless operation or any other upset condition or equipment breakdown which could have been prevented by the exercise of reasonable care.

[40 CFR 60.11(d)]

6. Emission Rates for Performance Testing

a. Using O<sub>2</sub> as Diluent Gas

The emission rate (E) of particulate matter, SO<sub>2</sub>, or NO<sub>x</sub> shall be calculated for each run using the following equation: [40 CFR 60.46(b)(1)]

$$E = C F_d (20.9)/(20.9 - \% O_2)$$

E = emission rate of pollutant, ng/J (1b/million Btu).

C = concentration of pollutant, ng/dscm (1b/dscf).

%O<sub>2</sub> = oxygen concentration, percent dry basis.

F<sub>d</sub> = factor as determined from Method 19.

b. Using CO<sub>2</sub> as Diluent Gas

The emission rate (E) of particulate matter, SO<sub>2</sub>, or NO<sub>x</sub> shall be calculated for each run using the following equation: [40 CFR 60.46(d)(1)]

$$E = C F_c (100/\%CO_2)$$

E = emission rate of pollutant, ng/J (1b/million Btu).

C = concentration of pollutant, ng/dscm (1b/dscf).

%CO<sub>2</sub> = carbon dioxide concentration, percent dry basis.

F<sub>c</sub> = factor as determined from Method 19.

7. Permit Shield

[A.A.C. R18-2-325]

Compliance with this Section shall be deemed compliance with 40 CFR 60.7(b), 40 CFR 60.7(c), 40 CFR 60.7(f), 60.11(d), 40 CFR 60.45(a), 40 CFR 60.45(g), 40 CFR 60.46(b)(1), 40 CFR 60.46(d)(1), and Permit #1000106, Attachment B, Condition I.A.5.

**C. Particulate Matter and Opacity**

1. Emission Limitations/Standards

a. Opacity

*The opacity of emissions from the stack of each unit shall not be greater than 20 percent except for periods of startup, shutdown, or malfunction, as defined in condition II.B.5.a, b, c, d, and II.C.2.a and b, and for one six-minute period per hour of not more than 27 percent opacity. Opacity readings of portions of plumes which contain condensed, uncombined water vapor shall not be used for the purposes of determining compliance with opacity standards.*

[40 CFR 60.42(a)(2), 60.11(c), 60.11(e)(1) and A.A.C. R18-2-331.A.3.f]

[Material Permit Condition are defined by underline and italics]

b. Particulate Matter

Permittee shall not cause to be discharged into the atmosphere from the stack of each unit any gases which contain particulate matter in excess of 43 nanograms per joule heat input (0.10 lb per million Btu) derived from fossil fuel.

[40 CFR 60.42(a)(1)]

2. Air Pollution Control Requirements

*At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate the four Joy Western*

electrostatic precipitators (2 per boiler) in a manner consistent with good air pollution control practices for minimizing emissions.

[40 CFR 60.11(d) and A.A.C. R18-2-331.3.e]

[Material Permit Condition are defined by underline and italics]

a. Startup

The electrostatic precipitator (ESP) of the respective unit shall be placed in service as soon as practicable after startup begins but before it ends.

Startup is completed when the flue gas system temperatures have reached a sustained level of 550 degrees Fahrenheit at the ESP outlet and the operator has determined it is safe to turn on the ESP. Startup may be a single smooth sequence of events, or, alternatively may require several attempts, and is not necessarily of predictable duration. The startup operation may require placing the ESP in and out of service, as may be required if conditions become unsafe until all conditions of the startup operation are met and the operator determined that the unit is no longer in startup mode.

b. Shutdown

During periods of shutdown, the electrostatic precipitators (ESP) for the affected unit(s) shall remain in service until coal fired in the boiler are out or the minimum inlet temperature to the ESP falls below 550 degrees Fahrenheit.

3. Monitoring/Recordkeeping/Reporting Requirements

a. The continuous opacity monitoring system shall meet the following requirements:

(1) 40 CFR 60, Appendix B, Performance Specification 1, "Specification and Test Procedures for Opacity Continuous Emission Monitoring Systems in Stationary Sources"

- (a) Apparatus
- (b) Installation Specifications
- (c) Design and Performance Specifications
- (d) Design Specifications Verification Procedure
- (e) Performance Specifications Verification Procedure
- (f) Equations [40 CFR 60.13(a)]

(2) The following quality assurance requirements:

(a) Calibration Checks

Permittee shall check the zero and span calibration drifts at least once daily in accordance with a written procedure. [40 CFR 60.13(d)(1) and 40 CFR 60, Appendix B, PS1, 5.2]

(b) Zero and Span Drift Adjustments

- i. The zero and span shall, as a minimum, be adjusted whenever the 24-hr zero drift or 24-hr span drift exceeds 4% opacity. [40 CFR 60.13(d)(1)]
- ii. The system shall allow for the amount of excess zero and span drift measured at the 24-hour interval checks to be recorded and quantified. [40 CFR 60.13(d)(1)]
- iii. The optical surfaces exposed to the effluent gases shall be cleaned prior to performing the zero and span drift adjustments, except for systems using automatic zero adjustments. [40 CFR 60.13(d)(1)]
- iv. For systems using automatic zero adjustments, the optical surfaces shall be cleaned when the cumulative automatic zero compensation exceeds 4% opacity. [40 CFR 60.13(d)(1)]

(c) System Checks

A method for producing a simulated zero opacity condition and an upscale (span) opacity condition using a certified neutral density filter or other related technique to produce a known obscuration of the light beam to provide a system check of the analyzer internal optical surfaces and all electronic circuitry including the lamp and photodetector assembly shall be used by the Permittee. [40 CFR 60.13(d)(2)]

(d) Minimum Frequency of Operation

Except during periods of system breakdowns, repairs, calibration checks, and zero and span adjustments, the Continuous Opacity Monitoring System (COMS) shall be in continuous operation and shall complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period. [40 CFR 60.13(e)(1)]

(e) Data Reduction and Missing Data [40 CFR 60.13(h)]

- i. Permittee shall reduce all data from the COMS to 6-minute averages. Six-minute opacity averages shall be calculated from 36 or more data points equally spaced over each 6-minute period.

- ii. Data recorded during periods of system breakdowns, repairs, calibration checks, and zero and span adjustments shall not be included in the data averages computed under the previous paragraph. An arithmetic or integrated average of all data may be used.

b. Compliance Assurance Monitoring for Particulate Matter

- (1) The opacity of exhaust gases shall be an indicator of particulate matter emissions. [40 CFR 64.6(c),(1)(i)]
- (2) A COMS shall be used to monitor opacity. The COMS shall be installed and operated in accordance with the requirements specified in Condition II.C.3 of this Attachment. [40 CFR 64.6(c),(1)(i) and (ii)]
- (3) Using COMS data, Permittee shall calculate rolling 3-hour average opacities excluding periods of boiler startup, shutdown, and malfunction. Rolling 3-hour average opacities in excess of 18% shall be considered on excursion. [40 CFR 64.6(c),(2)]
- (4) Permittee shall maintain the monitoring, including but not limited to maintaining necessary parts for routine repair of the monitoring equipment. [40 CFR 64.6(c),(3), 64.7(b)]
- (5) Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), Permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the boilers are operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. Permittee shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. [40 CFR 64.6(c)(3), 64.9(c)]
- (6) Response to excursions [40 CFR 64.6(c)(3), 64.7(d)]
  - (a) Upon detecting an excursion or exceedance, Permittee shall restore operation of the boiler (including the control device and associated capture system) to their normal or usual manner of operation as expeditiously as

practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown, or malfunction, and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operations to within the indicator range, designated condition, or below applicable emission limitation or standard, as applicable.

- (b) Determination of whether Permittee has used acceptable procedures in response to an excursion or exceedance will be based in information available, which may include but is not limited to, monitoring results, review of operation, and maintenance procedures and records, and inspection of the control device, associated capture system, and process.
- (7) After approval of the monitoring under this section, if the Permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, Permittee shall promptly notify the Department, and if necessary, submit a proposed modification to this permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, re-establishing indicator ranges or designated conditions, modifying the frequency of conduction monitoring and collecting data, or the monitoring of additional parameters.  
[40 CFR 64.6(c) (3), 64.9(e)]
- (8) Excursions shall be reported as required by Condition VII.A.4 of Attachment A of this permit. The report shall include, at a minimum, the following: [A.A.C. R18-2-309(2)(c)(iii), 64.9(a)(2)]
  - (a) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursion or exceedances, as applicable, and the corrective actions taken; and
  - (b) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitoring downtime incidents (other than downtime associated



with zero and span or other daily calibration checks, if applicable).

- c. The Permittee shall log in ink or electronic format and maintain a record of 3 hr opacity measurements performed in accordance with paragraph (b) above and any corrective actions taken shall include recording the date and time of the event and the date and time corrective action, if any, is complete. [A.A.C. R18-2-306.A.3.b]

- d. Opacity Excess Emissions

Excess emissions for Units 1 and 2 are defined as any six-minute period during which the average opacity of emissions exceeds 20 percent opacity, except that one six-minute average per hour of up to 27 percent opacity need not be reported. [40 CFR 60.45(g)(1)]

- e. Particulate Matter Excess Emissions

Excess emissions for Units 1 and 2 are defined as any average of three one-hour manual source tests during which the average emissions of particulate matter exceeds the applicable standard in Section II.C.1.b of this Attachment.

[40 CFR 60.8(f) and Operating Permit #1000106, Attachment B, Condition III.E.3.a(2)]

- 4. Testing Requirements

Permittee shall perform an annual performance test to determine the particulate matter concentration using EPA Reference Method 5, 5B, or 17. [40 CFR 60.46(b)(2)]

- 5. Permit Shield

Compliance with this Section shall be deemed compliance with 40 CFR 60.8(f), 40 CFR 60.11(c), 40 CFR 60.11(d), 40 CFR 60.11(e)(1), 40 CFR 60.13(d)(1), 40 CFR 60.13(d)(2), 40 CFR 60.13(e)(1), 40 CFR 60.13(h), 40 CFR 60.42(a)(1), 40 CFR 60.42(a)(2), 40 CFR 60.45(a), 40 CFR 60.45(g)(1), 40 CFR 60.46(b)(2), 40 CFR 60.46(b)(3), 40 CFR 64.3, 40 CFR 64.4, 40 CFR 64.5, 40 CFR 64.6, 40 CFR 64.7, and 40 CFR 64.9. [A.A.C. R18-2-325]

## **D. Nitrogen Oxides (NO<sub>x</sub>)**

- 1. Emission Limitations/Standards

- a. Coal

Permittee shall not cause to be discharged into the atmosphere from the stack of each unit any gases which contain nitrogen oxides, expressed as NO<sub>2</sub> in excess of 300 nanograms per joule heat input (0.70 lb per million Btu) derived from coal. [40 CFR 60.44(a)(3)]

- b. Fuel Oil and Used oil fuel

Permittee shall not cause to be discharged into the atmosphere from the stack of each unit any gases which contain nitrogen oxides, expressed as NO<sub>2</sub> in excess of 129 nanograms per joule heat input (0.30 lb per million Btu) derived from used oil fuel. [40 CFR 60.44(a)(2)]

c. Combination Fuels

When different fossil fuels are burned simultaneously in any combination, the applicable standard (in ng/J) is determined by proration using the following formula: [40 CFR 60.44(b)]

$$PS_{NOx} = \frac{w(260) + x(86) + y(130) + z(300)}{w+x+y+z}$$

Where:

PS<sub>NOX</sub> = is the prorated standard for nitrogen oxides when burning different fuels simultaneously, in nanograms per joule heat input derived from all fossil fuels fired or from all fossil fuels and wood residue fired;  
w = is the percentage of total heat input derived from lignite;  
x = is the percentage of total heat input derived from gaseous fossil fuel;  
y = is the percentage of total heat input derived from liquid fossil fuel;  
and  
z = is the percentage of total heat input derived from solid fossil fuel (except lignite).

d. Compliance shall be based on the total heat input from all fossil fuels burned, including gaseous fuels. [40 CFR 60.43(c)]

2. Air Pollution Control Requirements

At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate the Riley Stoker turbo fired boilers to control the nitrogen oxide emissions as guaranteed by Riley Stoker.

[A.A.C. R18-2-306.A.2 and Operating Permit #1000106, Attachment B, Condition IV.A.3]

3. Monitoring/Recordkeeping/Reporting Requirements

a. The continuous emission monitoring systems for NO<sub>x</sub>, shall meet the following requirements:

(1) 40 CFR Part 75, Appendix A, Specification and Test Procedures

- (a) Installation and measurement location
- (b) Equipment specifications
- (c) Performance specifications
- (d) Data acquisition and handling systems
- (e) Calibration gas
- (f) Certifications tests and procedures
- (g) Calculations

(2) 40 CFR Part 75, Appendix B, Quality Assurance and Quality

#### Control Procedure

- (a) Quality control program
- (b) Frequency of testing

#### (3) Data Reduction

Permittee shall comply with the data reduction requirements of 40 CFR Part 75.10(d)(1).

#### b. Nitrogen Oxide Excess Emissions

Excess emissions for Units 1 and 2 using a continuous monitoring system for measuring nitrogen oxides are defined as any three-hour period during which the average emissions (arithmetic average of three contiguous one-hour periods) exceed the applicable standards in Section II.D.1 of this Attachment. [40 CFR 60.45(g)(3)]

#### 4. Permit Shield

Compliance with this Section shall be deemed compliance with 40 CFR 60.43(c), 40 CFR 60.44(a)(2), 40 CFR 60.44(a)(3), 40 CFR 60.44(b), 40 CFR 60.45(a), 40 CFR 60.45(g)(3), 40 CFR 75 Appendix “A” and “B”, and 40 CFR 75.10(d)(1). [A.A.C. R18-2-325]

### **E. Carbon Dioxide (CO<sub>2</sub>)**

#### 1. Monitoring/Recordkeeping/Reporting Requirements

The continuous emission monitoring systems for CO<sub>2</sub> shall meet the following requirements:

##### a. 40 CFR Part 75, Appendix A, Specification and Test Procedures

- (1) Installation and measurement location
- (2) Equipment specifications
- (3) Performance specifications
- (4) Data acquisition and handling systems
- (5) Calibration gas
- (6) Certifications tests and procedures
- (7) Calculations

##### b. 40 CFR Part 75, Appendix B, Quality Assurance and Quality Control Procedure

- (1) Quality control program
- (2) Frequency of testing

##### c. Data Reduction

Permittee shall comply with the data reduction requirements of 40 CFR

Part 75.10(d)(1).

2. Permit Shield

Compliance with this Section shall be deemed compliance with 40 CFR 60.45(a), 40 CFR 75 Appendix “A” and “B”, and 40 CFR 75.10(d)(1). [A.A.C. R18-2-325]

**F. Sulfur Dioxide (SO<sub>2</sub>)**

1. Emission Limitations/Standards

a. Coal

Permittee shall not cause to be discharged into the atmosphere from the stack of each unit any gases which contain sulfur dioxide in excess of 340 nanograms per joule heat input (0.8 pounds per million Btu) derived from coal. [A.A.C. R18-2-903.1]

b. Fuel Oil and Used Oil Fuel

Permittee shall not cause to be discharged into the atmosphere from the stack of each unit any gases which contain sulfur dioxide in excess of 340 nanograms per joule heat input (0.8 pounds per million Btu) derived from used oil fuel. [40 CFR 60.43(a)(1)]

c. Compliance shall be based on the total heat input from all fossil fuels burned, including gaseous fuels. [40 CFR 60.43(c)]

2. Air Pollution Control Requirement

At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate the Pullman Kellog sulfur dioxide scrubber in a manner consistent with good air pollution control practices for minimizing emissions. [40 CFR 60.11(d) and A.A.C. R18-2-331]

3. Monitoring/Recordkeeping/Reporting Requirements

The continuous emission monitoring systems for SO<sub>2</sub> shall meet the following requirements:

a. 40 CFR Part 75, Appendix A, Specification and Test Procedures

- (1) Installation and measurement location
- (2) Equipment specifications
- (3) Performance specifications
- (4) Data acquisition and handling systems
- (5) Calibration gas
- (6) Certifications tests and procedures
- (7) Calculations

b. 40 CFR Part 75, Appendix B, Quality Assurance and Quality Control

Procedure

- (1) Quality control program
- (2) Frequency of testing

c. Data Reduction

Permittee shall comply with the data reduction requirements of 40 CFR Part 75.10(d)(1).

d. Permittee shall comply with all the applicable recordkeeping and reporting requirements of 40 CFR Part 75 Subparts F and G respectively.

e. Sulfur Dioxide Excess Emissions

Excess emissions for Units 1 and 2 are defined as any three-hour period during which the average emissions (arithmetic average of three contiguous one-hour periods) of sulfur dioxide as measured by a continuous monitoring system exceeds the applicable standard in Section II.F.1 of this Attachment. [40 CFR 60.45(g)(2)]

4. Permit Shield

Compliance with this Section shall be deemed compliance with 40 CFR 60.11(d), 40 CFR 60.43(a)(1), 40 CFR 60.43(c), 40 CFR 60.45(a), 40 CFR 60.45(g)(2), 40 CFR 75 Subpart F and G, 40 CFR 75 Appendix "A" and "B", and 40 CFR 75.10(d)(1), and A.A.C. R18-2-903.1. [A.A.C. R18-2-325]

### **III. AUXILIARY BOILER**

#### **A. Applicability**

This section applies to the Auxiliary Boiler as described in Attachment “C” of this permit.

#### **B. Fuel and Operational Requirements**

1. Permittee shall burn only Number 2 fuel oil and used oil in the auxiliary boiler.  
[Operating Permit #1000106, Attachment B, Condition I.B.4.b]
2. Permittee shall not fire high sulfur oil (fuel sulfur content 0.9% by weight) as a fuel unless the Permittee demonstrates to the satisfaction of the Director that sufficient quantities of low sulfur oil are not available for use by the source and that it has adequate facilities and contingency plans to insure that the sulfur dioxide ambient air quality standards set forth in A.A.C. R18-2-202 will not be violated.  
[A.A.C. R18-2-724.G]
3. Permittee shall not operate the auxiliary boiler at a capacity factor greater than 10%. The capacity factor shall be defined as the actual heat input of the auxiliary boiler divided by the maximum heat input of the auxiliary boiler then multiplied by 100 to achieve a percentage.  
[A.A.C. R18-2-306.01.A, and 40 CFR 63.7575]
4. Permittee shall maintain records of the auxiliary boiler capacity factor at all times that the boiler is in operation.  
[A.A.C. R18-2-306.A.3.c]
5. Permittee shall keep on record the contractual agreement with the liquid fuel vendor indicating the following information concerning the liquid fuel being fired for each shipment of fuel oil:
  - (1) The name of the fuel oil supplier;
  - (2) The heating value of the fuel oil;
  - (3) The density of the fuel oil;
  - (4) The ash content of the fuel oil;
  - (5) The sulfur content of the fuel oil from which the shipment came;
  - (6) The method used to determine the ash content of the fuel oil; and
  - (7) The method used to determine the sulfur content of the fuel oil.  
[A.A.C. R18-2-306.A.3.b]
6. Permit Shield

Compliance with this Section shall be deemed compliance with A.A.C. R18-2-724.G, and Permit #1000106, Attachment B, Condition I.B.4.b.

[A.A.C. R18-2-325]

#### **C. Particulate Matter and Opacity**

1. Emission Limitations/Standards

a. Opacity

Permittee shall not cause, allow or permit to be emitted into the atmosphere from the auxiliary boiler, smoke which exceeds 15 percent opacity measured in accordance with EPA Reference Method 9.

[A.A.C. R18-2-724.J]

b. Particulate Matter

Permittee shall not cause, allow or permit the emission of particulate matter, caused by combustion of fuel, from the auxiliary boiler in excess of the amount calculated by the following equation: [A.A.C. R18-2-724.C.1]

$$E = 1.02 Q^{0.769}$$

Where:

E = the maximum allowable particulate emissions rate in pounds-mass per hour.

Q = the heat input in million Btu per hour.

c. Definition of Heat Input

- (1) For the purposes of condition III.C.1.b of this Attachment, heat input is defined as the aggregate heat content of all fuels whose products of combustion pass through a stack or other outlet

[A.A.C. R18-2-724.B]

- (2) The total heat input from the burning of all fuels shall be computed as follows:

$$Total\ Heat\ Input = \sum_{j=1}^n \sum_{i=1}^k (NHV_{i,j}) \times (U_{i,j})$$

Where:

NHV<sub>i</sub> = Net heating value of each fuel “i” at standard temperature and pressure; and

U<sub>i</sub> = Fuel firing rate of each fuel “i”.

[Operating Permit #1000106, Attachment B, Condition I.B.5.b]

2. Monitoring/Recordkeeping/Reporting

- a. Permittee shall report all six-minute periods in which the opacity of any plume or effluent exceeds 15 percent from the auxiliary boiler.

[A.A.C. R18-2-724.J]

- b. Permittee shall conduct opacity monitoring in accordance with Condition I.E of this Attachment.

[A.A.C. R18-2-306.A.3.c]

3. Permit Shield

Compliance with this Section shall be deemed compliance with A.A.C. R18-2-724.B, A.A.C. R18-2-724, A.A.C. R18-2-724.C.1, and A.A.C. R18-2-724.J.

[A.A.C. R18-2-325]

**D. Sulfur Dioxide**

1. Emission Limitations/Standards

a. Permittee shall not cause, allow, or permit emission of more than 1.0 pounds of sulfur dioxide per million Btu heat input. [A.A.C. R18-2-724.E]

b. For the purposes of Conditions III.C.1.b and III.D.1.a of this Attachment, “heat input” is defined as the aggregate heat content of all fuels whose products of combustion pass through a stack or other outlet.

[A.A.C. R18-2-724.B]

c. The total heat input from the burning of all fuels shall be computed as follows:

$$Total\ Heat\ Input = \sum_{j=1}^n \sum_{i=1}^k (NHV_{i,j}) \times (U_{i,j})$$

Where:

NHV<sub>i</sub> = Net heating value of each fuel “i” at standard temperature and pressure; and

U<sub>i</sub> = Fuel firing rate of each fuel “i”.

[Operating Permit #1000106, Attachment B, Condition I.B.5.b]

2. Monitoring/Recordkeeping/ Reporting

Permittee shall maintain records of all emissions calculations performed for any change in Conditions III.D.2.a.(2), (3), or (5) of Attachment “B”, using the following equation:

$$SO_2\ (lb/MMBtu) = 2.0 \times [(Weight\ percent\ of\ sulfur/100) \times Density\ (lb/gal)] / [(Heating\ value\ (Btu/gal)) \times (1\ MMBtu/1,000,000\ Btu)]$$

[A.A.C. R18-2-306.A.3.c]

3. Permit Shield

Compliance with this Section shall be deemed compliance with A.A.C. R18-2-724.B, and A.A.C. R18-2-724.E.

[A.A.C. R18-2-325]



#### **IV. INTERNAL COMBUSTION ENGINES**

##### **A. Applicability**

This section applies to all internal combustion engines as described in Attachment “C” of this permit.

##### **B. Operational Limitation**

Permittee shall only burn diesel fuel in the internal combustion engines located at the facility. [A.A.C. R18-2-306.A.2]

##### **C. Particulate Matter and Opacity**

###### **1. Emissions Limitations/Standards**

- a. The Permittee shall not cause or allow to be discharged into the atmosphere from the internal combustion engines any gases in which exhibit greater than 40% opacity. [A.A.C. R18-2-719.E]

- b. The Permittee shall not cause, allow or permit the emission of particulate matter, caused by combustion of fuel, from the internal combustion engines having a heat input rate of 4200 million Btu per hour or less, in excess of the amounts calculated by the following equation:

$$E = 1.02 * Q^{0.769}$$

where:

E = the maximum allowable particulate emissions rate in pounds-mass per hour

Q = the heat input in million BTU per hour.

[A.A.C. R18-2-719.C.1]

- c. For the purposes of Condition IV.C.1.b above, the heat input shall be the aggregate heat content of all fuels whose products of combustion pass through a stack or other outlet. Compliance tests shall be conducted during operation at the normal rated capacity of each unit. The total heat input of all operation generators and internal combustion engines on a plant or premises shall be used for determining the maximum allowable amount of particulate matter which may be emitted. [A.A.C. R18-2-719.B]

###### **2. Monitoring, Recordkeeping and Reporting Requirements**

- a. The Permittee shall monitor the lower heating value of the fuel being combusted in the internal combustion engines. The Permittee shall maintain records of the lower heating value of the fuel fired in the internal combustion engines. This may be accomplished by maintaining on record a copy of fuel supplier certifications that specify the lower heating value of the fuel.

[A.A.C. R18-2-306.A.3.c and A.A.C. R18-2-719.1]

- b. For the internal combustion engines listed in Attachment C, Permittee shall conduct opacity monitoring in accordance with Condition I.E of this Attachment. [A.A.C. R18-2-306.A.3.c]

3. Permit Shield

Compliance with the conditions of this Section shall be deemed compliance with A.A.C. R18-2-719.B, A.A.C. R18-2-719.C.1, A.A.C. R18-2-719.E and A.A.C. R18-2-719.I. [A.A.C. R18-2-325]

**D. Sulfur Dioxide**

1. Emissions Limitations/Standards

The Permittee shall not burn high sulfur fuel only fuel which limits the emission of sulfur dioxide to 1.0 pound per million Btu heat input. [A.A.C. R18-2-719.F and H]

2. Monitoring, Recordkeeping and Reporting Requirements

- a. The Permittee shall monitor the sulfur content of the fuel being combusted in the internal combustion engines. The Permittee shall maintain records of the daily sulfur content and lower heating value of the fuel fired in the internal combustion engines. This may be accomplished by maintaining on record a copy of fuel supplier certifications that specify the sulfur content and lower heating value of the fuel.

[A.A.C. R18-2-306.A.3.c and A.A.C. R18-2-719.I]

- b. The Permittee shall report to the Director any daily period during which the sulfur content of the fuel being fired in the machine exceeds 0.8%.

[A.A.C. R18-2-719.J and 306.A.3]

3. Permit Shield

Compliance with the conditions of this Section shall be deemed compliance with A.A.C. R18-2-719.I, A.A.C. R18-2-719.J, A.A.C. R18-2-719.H, and A.A.C. R18-2-719.F. [A.A.C. R18-2-325]

**V. COAL HANDLING**

**A. Applicability**

This section applies to the Coal Handling Facility as described in Attachment “C” of this permit.

**B. Opacity**

1. Emission Limitations/Standards

- a. The Permittee shall not cause to be discharged into the atmosphere from

any coal processing and conveying equipment including breakers and crushers, coal storage systems, and coal transfer and loading systems, any emissions greater than 40 percent opacity until April 23, 2006, after which, the opacity of any plume or effluent shall not be greater than 20 percent.

[A.A.C. R18-2-702.B.2 and -702.B.3]

- b. Opacity of an emission from any nonpoint source shall not be greater 40% measured in accordance with EPA Reference Method 9.

[A.A.C. R18-2-612]

2. Monitoring/Recordkeeping/Reporting

[A.A.C. R18-2-306.A.3.c]

Permittee shall conduct opacity monitoring in accordance with Condition I.E of this Attachment. This bi-weekly survey shall include observation of all exposed transfer points, enclosed transfer points, the coal storage pile, and baghouses.

3. Permit Shield

Compliance with this section shall be deemed compliance with 702.B. [A.A.C. R18-2-325]

**C. Particulate Matter**

1. Emission Limitations/Standards

- a. Permittee shall not cause, allow or permit the discharge of particulate matter into the atmosphere in any one hour from any coal handling operation in total quantities in excess of the amounts calculated by the following equation:

$$E = 55.0 P^{0.11} - 40$$

Where:

E = the maximum allowable particulate emissions rate in pounds-mass per hour.

P = the process weight rate in tons-mass per hour. The total process weight from all similar units employing a similar type process shall be used in determining the maximum allowable emission of particulate matter.

[A.A.C. R18-2-716.B.2]

- b. The total process weight rate from all similar units employing a similar type process shall be used in determining the maximum allowable emission of particulate matter.

[A.A.C. R18-2-716.B.2]

2. Air Pollution Controls

When the coal handling system is operational, Permittee shall maintain and operate the appropriate baghouses used to capture particulate matter emissions associated with coal handling in accordance with manufacturer's specification and in a manner consistent with good air pollution control practices. Wet dust

suppression shall be maintained and operated at the rotary car dumper during train unloading, at conveyor transfer points in the yard area, and at the stacking-reclaiming area.

[A.A.C. R18-2-306.A.2 and 331.A.3.e]

2. Monitoring/Recordkeeping/Reporting

a. The manufacturer's specifications shall be on file and shall be readily available for inspection by the Department.

[A.A.C. R18-2-306.A.2]

b. Permittee shall maintain records of emissions related maintenance performed on the baghouses.

[A.A.C. R18-2-306.A.3.c]

3. Permit Shield

Compliance with this Section shall be deemed compliance with A.A.C R18-2-716.E, A.A.C. R18-2-716.B, and A.A.C. R18-2-716.D.

[A.A.C. R18-2-325]

**VI. LIMESTONE HANDLING**

**A. Applicability**

This section applies to the Limestone Handling Facility as described in Attachment "C" of this permit.

**B. Opacity**

1. Emission Limitations/Standards

a. The Permittee shall not cause to be discharged into the atmosphere from the limestone handling plant any emissions greater than 40 percent opacity until April 23, 2006, after which, the opacity of any plume or effluent shall not be greater than 20 percent.

[A.A.C. R18-2-702.B.2 and -702.B.3]

b. Opacity of an emission from any nonpoint source shall not be greater 40% measured in accordance with EPA Reference Method 9.

[A.A.C. R18-2-612]

2. Monitoring/Recordkeeping/Recording

[A.A.C. R18-2-306.A.3.c]

Permittee shall conduct opacity monitoring in accordance with Condition I.E of this Attachment. This bi-weekly observation shall include observation of all exposed transfer points, enclosed transfer points, limestone stockpiles, and the baghouse.

3. Permit Shield

Compliance with this Section shall be deemed compliance with R18-2-702.B.

[A.A.C. R18-2-325]

## C. Particulate Matter

### 1. Emission Limitations/Standards

Permittee shall not cause, allow or permit the discharge of particulate matter into the atmosphere in any one hour from any limestone handling operation in total quantities in excess of the amounts calculated by the following equation:

$$E = 55.0 P^{0.11} - 40$$

Where:

E = the maximum allowable particulate emissions rate in pounds-mass per hour.

P = the process weight rate in tons-mass per hour. The total process weight from all similar units employing a similar type process shall be used in determining the maximum allowable emission of particulate matter.

[A.A.C. R18-2-720.B.2]

### 2. Air Pollution Controls

- a. When the limestone handling system is operational, Permittee shall maintain and operate the Johnson March baghouse used to capture particulate matter emissions associated with limestone preparation in accordance with manufacturer's specification and in a manner consistent with good air pollution control practices.

[A.A.C. R18-2-306.A.2 and 331]

### 3. Monitoring/Recordkeeping/Reporting

- a. The manufacturer's specifications shall be on file and shall be readily available for inspection by the Department. [A.A.C. R18-2-306.A.2]
- b. Permittee shall maintain records of emissions related maintenance performed on the baghouse. [A.A.C. R18-2-306.A.3]

### 4. Permit Shield

Compliance with this Section shall be deemed compliance with A.A.C. R18-2-720.B.2. [A.A.C. R18-2-325]

## **VII. FLY ASH HANDLING**

### **A. Applicability**

This section applies to the Fly Ash Handling Facility as described in Attachment "C" of this permit.

### **B. Opacity**

#### **1. Emission Limitations/Standards**

The Permittee shall not cause to be discharged into the atmosphere from the fly ash handling plant any emissions greater than 40 percent opacity until April 23, 2006, after which, the opacity of any plume or effluent shall not be greater than 20 percent.

[A.A.C. R18-2-702.B.2 and -702.B.3]

#### **2. Monitoring/Recordkeeping/Reporting**

[A.A.C. R18-2-306.A.3.b]

- a. The Permittee shall conduct opacity monitoring in accordance with Condition I.E of this AttachmentA certified Method 9 observer shall conduct a bi-weekly visual survey of visible emissions from the fly ash handling system when it is in operation. This weekly observation shall include observation of all exposed transfer points, enclosed transfer points, the baghouses, and the mixer unloader.

#### **3. Permit Shield**

Compliance with this Section shall be deemed compliance with A.A.C. R18-2-702.B.

[A.A.C. R18-2-325]

### **C. Particulate Matter**

1. Permittee shall not cause, allow or permit the discharge of particulate matter into the atmosphere in any one hour from any fly ash handling operation in total quantities in excess of the amounts calculated by the following equation:

[A.A.C. R18-2-730.A.1.b]

$$E = 55.0 P^{0.11} - 40$$

Where:

- E = the maximum allowable particulate emissions rate in pounds-mass per hour.
- P = the process weight rate in tons-mass per hour. The total process weight from all similar units employing a similar type process shall be used in determining the maximum allowable emission of particulate matter.

#### **2. Air Pollution Controls**

When the fly ash handling system is operational, Permittee shall maintain and operate the associated Flex-Kleen baghouses, the Scientific baghouse, water spray header, pugmill and the mixer unloader used to minimize particulate matter emissions associated with fly ash handling in accordance with manufacturer's specification and in a manner consistent with good air pollution control practices. [A.A.C. R18-2-306.A.2 and 331]

3. Monitoring/Recordkeeping/Reporting

- a. The manufacturer's specifications shall be on file and shall be readily available for inspection by the Department. [A.A.C. R18-2-306.A.2]
- b. Permittee shall maintain records of emissions related maintenance performed on the baghouses and mixer unloader. [A.A.C. R18-2-306.A.3.c]

4. Permit Shield

Compliance with this Section shall be deemed compliance with A.A.C. R18-2-730.A.1.b. [A.A.C. R18-2-325]

**D. Odorous Materials**

1. Permittee shall not emit gaseous or odorous materials from equipment, operations or premises in such quantities or concentrations as to cause air pollution. [A.A.C. R18-2-730.D]
2. Where a stack, vent or other outlet is at such a level that fumes, gas mist, odor, smoke, vapor or any combination thereof constituting air pollution is discharged to adjoining property, the Director may require the installation of abatement equipment or the alteration of such stack, vent, or other outlet by the Permittee thereof to a degree that will adequately dilute, reduce or eliminate the discharge of air pollution to adjoining property. [A.A.C. R18-2-730.G]

3. Permit Shield

Compliance with this section shall be deemed compliance with A.A.C. R18-730.D, and A.A.C. R18-2-730.G. [A.A.C. R18-2-325]

**VIII. COOLING TOWERS 1 AND 2**

**A. Applicability**

This Section applies to Cooling Towers 1 and 2 as described in Attachment "C" of this permit.

**B. Opacity**

1. Operating Limitations

The Permittee shall not cause to be discharged into the atmosphere from the

cooling towers any emissions greater than 40 percent opacity until April 23, 2006, after which, the opacity of any plume or effluent shall not be greater than 20 percent.

[A.A.C. R18-2-702.B.2 and -702.B.3]

2. Monitoring/Recordkeeping/Reporting

[A.A.C. R18-2-306.A.3.b]

The Permittee shall conduct opacity monitoring for the cooling towers in accordance with Condition I.E of this Attachment.

3. Permit Shield

Compliance with this Section shall be deemed compliance with A.A.C. R18-2-702.B.

[A.A.C. R18-2-325]

**C. Particulate Matter**

1. Permittee shall not discharge particulate matter into the atmosphere in any one hour from the cooling towers in total quantities in excess of the amounts calculated by the following equation:

[A.A.C. R18-2-730.A.1]

$$E = 55.0 P^{0.11} - 40$$

Where:

E = the maximum allowable particulate emissions rate in pounds-mass per hour.

P = the process weight rate in tons-mass per hour. The total process weight from all similar units employing a similar type process shall be used in determining the maximum allowable emission of particulate matter.

2. Permit Shield

Compliance with this Section shall be deemed compliance with A.A.C. R18-2-730.A.1.

[A.A.C. R18-2-325]

**D. Odorous Materials**

1. Permittee shall not emit gaseous or odorous materials from equipment, operations or premises in such quantities or concentrations as to cause air pollution.

[A.A.C. R18-2-730.D]

2. Where a stack, vent or other outlet is at such a level that fumes, gas mist, odor, smoke, vapor or any combination thereof constituting air pollution is discharged to adjoining property, the Director may require the installation of abatement equipment or the alteration of such stack, vent, or other outlet by the Permittee thereof to a degree that will adequately dilute, reduce or eliminate the discharge of air pollution to adjoining property.

[A.A.C. R18-2-730.G]

3. Permit Shield

Compliance with this Section shall be deemed compliance with A.A.C. R18-2-



**IX. USED OIL SPECIFICATIONS****A. Emission Limitations/Standards**

1. Permittee may burn used oil or used oil fuel if the following conditions are met:  
[A.R.S. 49-426.G.1]
  - a. The flash point of the oil does not fall below 100° F;
  - b. The oil does not have following contaminants in excess of the following levels:
 

(1)	Arsenic	5 ppm
(2)	Cadmium	2 ppm
(3)	Chromium	10 ppm
(4)	Lead	100 ppm
(5)	PCBs	2 ppm
  - c. Used oil or used oil fuel blended with virgin fuel oil does not exceed 5% of the total fuel in any fuel storage tank.  
[Operating Permit #1000106, Attachment B, Condition V.A.3]
2. Limitations
  - a. Permittee shall not burn Hazardous Waste or Hazardous Waste Fuel as defined by A.R.S. 49-921 at the Coronado Generating Facility.  
[Operating Permit #1000106, Attachment B, Condition V.B.1]
  - b. The amount of used oil consumed shall not exceed 350 barrels annually.  
[Operating Permit #1000106, Attachment B, Condition V.B.2]

**B. Monitoring/Recordkeeping/Reporting**

1. All tests conducted pursuant to Condition IX.C of this Attachment shall be documented and a report submitted to the Department along with the semi-annual compliance certification.
2. Permittee shall maintain such records as required to document the use of the above fuel including the following:
  - a. Dates on which used oil or used oil fuel was burned;
  - b. Hours of usage of the used oil or used oil fuel; and
  - c. The quantity of used oil or used oil fuel burned.

**C. Testing Requirements**

[A.R.S. 49-426.G.2]

1. All used oil or used oil fuel samples shall be tested prior to burning for chlorinated solvents by EPA Method 9077.
2. A representative sample from each source of used oil or used oil fuel shall be

tested annually for Arsenic, Cadmium, Chromium, and Lead using approved EPA methods prior to burning.

**D. Permit Shield**

Compliance with this Section shall be deemed compliance with A.R.S. 49-426.G.1, Permit #1000106, Attachment B, Condition V.A.3, Condition V.B.1, and Condition V.B.2. [A.A.C. R18-2-325]

**X. FUGITIVE EMISSIONS**

**A. Emission Limitations/Standards**

**1. Open Areas, Roadways & Streets, Storage Piles, and Material Handling**

a. Permittee shall not cause, allow or permit visible emissions from open areas, roadways and streets, storage piles or material handling in excess of 40 percent opacity measured in accordance with the Arizona Testing Manual, Reference Method 9. [A.A.C. R18-2-612]

b. Permittee shall employ one or more of the following reasonable precautions to prevent excessive amounts of particulate matter from becoming airborne:

(1) Use approved dust suppressants, adhesive soil stabilizer, paving, covering, detouring, or wetting agents on, or bar access to open areas during construction operations, repair operations, demolition activities, clearing operations, and leveling operations, or when any earth is moved or excavated; [A.A.C. R18-2-604.A]

(2) Use approved dust suppressants, adhesive soil stabilizer, or paving on, or bar access to driveways, parking areas, and vacant lots where motor vehicular activity occurs; [A.A.C. R18-2-604.A and B]

(3) Use approved dust suppressants, temporary paving, detouring or wetting agents when a roadway is repaired, constructed, or reconstructed; [A.A.C. R18-2-605.A]

(4) Use dust suppressants, wetting agents, or cover the load adequately when transporting material likely to give rise to airborne dust; [A.A.C. R18-2-605.B]

(5) Use spray bars, hoods, wetting agents, dust suppressants, or cover when crushing, screening, handling, transporting, or conveying material that is likely to give rise to airborne dust; [A.A.C. R18-2-606]

(6) Adequately cover, or use wetting agents, chemical stabilization, or dust suppressants when stacking, piling, or otherwise storing organic or inorganic dust producing material; [A.A.C. R18-2-607.A]

- (7) Operate stacking and reclaiming machinery utilized at storage piles at all times with a minimum fall of material and with the use of spray bars and wetting agents;

[A.A.C. R18-2-607.B]

- (8) Use wetting agents or dust suppressants before the cleaning of site, roadway, or alley. Earth or other material shall be removed from paved streets onto which earth or other material has been transported by trucking or earth moving equipment, erosion by water or by other means; or

[A.A.C. R18-2-804.B]

- (9) Any other method as proposed by the Permittee and approved by the Director.

[A.A.C. R18-2-325]

2. Open Burning

Except as provided in A.A.C. R18-2-602.C(1), C(3), and C(4), and except when permitted to do so by either ADEQ or the local officer delegated the authority for issuance of open burning permits the Permittee shall not conduct open burning.

[A.A.C. R18-2-602]

**B. Monitoring/Recordkeeping/ Reporting**

[A.A.C. R18-2-306.A.3.b]

1. Open Areas, Roadways & Streets, Storage Piles, and Material Handling

a. Bi-Weekly Monitoring Requirements

The Permittee shall conduct opacity monitoring for non-point sources in accordance with Condition I.E of this Attachment..

- b. Permittee shall maintain records of the dates on which any of the activities listed in condition X.A.1.b.(1) through (9) of this Attachment were performed and control measures employed.

2. Open Burning

The Permittee shall maintain copies of all open burning permits on file.

**C. Permit Shield**

Compliance with the conditions of this part shall be deemed compliance with A.A.C.R18-2-602, -604.A,-604.B, -605.A, -605B, -606, -607.A, -607.B, -612, and A.A.C.R18-2-804.B.

[A.A.C. R18-2-325]

**XI. OTHER PERIODIC ACTIVITIES**

**A. Emission Limitations/Standards**

1. Abrasive Blasting

- a. The Permittee shall not cause or allow sandblasting or other abrasive

blasting without minimizing dust emissions to the atmosphere through the use of good modern practices. Good modern practices include:

[A.A.C. R18-2-726]

- (1) Wet blasting;
- (2) Effective enclosures with necessary dust collecting equipment;  
or
- (3) Any other method as approved by the Director.

- b. The Permittee shall not cause to be discharged into the atmosphere from sandblasting or other abrasive blasting operations any emissions greater than 40 percent opacity until April 23, 2006, after which, the opacity of any plume or effluent shall not be greater than 20 percent.

[A.A.C. R18-2-702.B.2 and R18-2-702.B.3]

## 2. Use of Paints

While performing spray painting operations the Permittee shall comply with the following requirements:

- a. The Permittee shall not conduct any spray painting operation without minimizing organic solvent emissions. Such operations other than architectural coating and spot painting shall be conducted in an enclosed area equipped with controls containing no less than 96 percent of the overspray.

[A.A.C. R18-2-727.A]

- b. The Permittee shall not either:

- (1) Employ, apply, evaporate or dry any architectural coating containing photochemically reactive solvents for industrial or commercial purposes; or
- (2) Thin or dilute any architectural coating with a photochemically reactive solvent.

[A.A.C. R18-2-727.B]

- c. For the purposes of part b. and e. of this condition, a photochemically reactive solvent shall be any solvent with an aggregate of more than 20 percent of its total volume composed of the chemical compounds classified in paragraphs (1) through (3) of this subsection, or which exceeds any of the following percentage composition limitations, referred to the total volume of solvent:

- (1) A combination of the following types of compounds having an olefinic or cyclo-olefinic type of unsaturation - hydrocarbons, alcohols, aldehydes, esters, ethers, or ketones: five percent
- (2) A combination of aromatic compounds with eight or more carbon atoms to the molecule except ethylbenzene: eight percent
- (3) A combination of ethylbenzene, ketones having branched hydrocarbon structures, trichloroethylene or toluene: twenty percent.

[A.A.C. R18-2-727.C]

- d. Whenever any organic solvent or any constituent of an organic solvent may be classified from its chemical structure into more than one of the groups or organic compounds described in subsection c(1) through c(3) of this condition, it shall be considered to be a member of the group having the least allowable percent of the total volume of solvents.

[A.A.C. R18-2-727.D]

- e. Permittee shall not dispose by evaporation more than 1.5 gallons of photochemically reactive solvent in any one day.

[SIP Provision R9-3-527.C]

### 3. Surface Coating Operations

[A.A.C R18-2-730.L]

- a. The Permittee shall not operate any surface coating application systems that emits volatile organic compounds in excess of the following:

- (1) 4.3 pounds per gallon (0.5 kilograms per liter) of coating, excluding water, delivered to a coating applicator that applies clear coatings.
- (2) 3.5 pounds per gallon (0.42 kilograms per liter) of coating, excluding water, delivered to a coating applicator in a coating application system that is air dried or forced warm air dried at temperatures up to 194 °F (90 °C).
- (3) 3.5 pounds per gallon (0.42 kilograms per liter) of coating, excluding water, delivered to a coating applicator that applies extreme performance coatings.
- (4) 3.0 pounds per gallon (0.36 kilograms per liter) of coating, excluding water, delivered to a coating applicator for all other coatings and application systems.

- b. If more than one emission limitation in paragraph XI.A.3.a above applies to a specific coating, then the least stringent emissions limitation shall be applied.

- c. All VOC emissions from solvent washings shall be considered in the emissions limitations listed in paragraph XI.A.3.a above, unless the solvent is directed to containers that prevent evaporation to the atmosphere.

### 4. Vapor Extractors

Materials including solvents or other volatile compounds shall be processed, stored, used and transported in such a manner and by such means that they will not evaporate, leak, escape or be otherwise discharged into the ambient air so as to cause or contribute to air pollution. Where means are available to reduce effectively the contribution to air pollution from evaporation, leakage or discharge, the installation and use of such control methods, devices, or equipment shall be mandatory.

[A.A.C. R18-2-730.F]

5. Landfill Operations

Permittee shall not emit gaseous or odorous materials from the landfill operations in such quantities or concentrations to cause air pollution. [A.A.C. R18-2-730.D]

6. Mobile Sources

a. Classification

The requirements of this condition are applicable to mobile sources which either move while emitting air contaminants or are frequently moved during the course of their utilization but are not classified as motor vehicles, agricultural vehicles, or are agricultural equipment used in normal farm operations. Mobile sources shall not include portable sources as defined in A.A.C. R18-2-101.84. [A.A.C. R18-2-801]

b. Roadway and Site Cleaning Machinery

Permittee shall not cause, allow or permit to be emitted into the atmosphere from any roadway and site cleaning machinery smoke or dust for any period greater than ten consecutive seconds, the opacity of which exceeds 40 percent. Visible emissions when starting cold equipment shall be exempt from this requirement for the first ten minutes. [A.A.C. R18-2-804.A]

7. Demolition/Renovation

Permittee shall comply with the applicable requirements of 40 CFR 61 Subpart M (National Emissions Standards for Hazardous Air Pollutants - Asbestos). [A.A.C. R18-2-1101.A.8]

**B. Monitoring, Recordkeeping, and Reporting**

[A.A.C. R18-2-306.A.3.c]

1. Abrasive Blasting

Each time an abrasive blasting project is conducted, the Permittee shall log in ink or in an electronic format, a record of the following:

- a. The date the project was conducted;
- b. The duration of the project; and
- c. Type of control measures employed.

2. Use of Paints

a. Each time a spray painting project is conducted, the Permittee shall log in ink or in an electronic format, a record of the following:

- (1) The date the project was conducted;
- (2) The duration of the project;
- (3) Type of control measures employed; and

(4) Material Safety Data Sheets for all paints and solvents used in the project.

b. Architectural coating and spot painting projects shall be exempt from the recordkeeping requirements of part a. above.

3. Mobile Sources

Permittee shall keep a record of all emissions related maintenance activities performed on Permittee's mobile sources stationed at the facility as per manufacturer's specifications.

4. Demolition/Renovation

Permittee shall keep all required records in a file. The required records include the ANESHAP Notification for Renovation and Demolition Activities form and all supporting documents.

5. Surface coating activities

[A.A.C R18-2-306.A.3.c]

a. The Permittee shall log in ink or keep in an electronic format a records of the following:

- (1) The date the project was conducted;
- (2) the duration of the project;
- (3) type of control measures employed
- (4) amount of surface coating used for the project
- (5) copies of the material safety and data sheets (MSDS) for each surface coating applied.

b. Permittee shall use vendor provided information to ensure that the surface coating materials being used satisfy the standards in Section XI.A.3.a of Attachment B. In the absence of vendor provided information, Permittee shall perform engineering calculations using the density and VOC content of the surface coating in order to compare against the standards set forth in Section XI.A.3.a of Attachment B.

**C. Permit Shield**

Compliance with this Section shall be deemed compliance with A.A.C. R18-2-702.B.C, R18-2-702.B.3, R18-2-726, R18-2-727.A, R18-2-727.B, R18-2-727.C, R18-2-727.D, SIP Provision R9-3-527.C, R18-2-730.D, R18-2-730.F, and R18-2-730.L, and R18-2-1101.A.8.

[A.A.C. R18-2-325]





## ATTACHMENT "C": EQUIPMENT LIST

Air Quality Control Permit No. 30732  
for  
*Salt River Project, Coronado Generating Station*

EQUIPMENT TYPE	MAX. CAPACITY	Quantity	MODEL	SERIAL #	INSTALLATION /MFG DATE
<i>Steam Generation</i>					
Unit 1	4719 MMBtu/hr	1	Riley Stoker Corporation	7153	7/25/1974
Unit 2	4719 MMBtu/hr	1	Riley Stoker Corporation	7188	7/25/1974
Auxiliary Boiler	157 MMBtu/hr	1	Combustion Engineering	37129857	7/25/1974
Cooling Tower 1	179900 gpm	1	Marley Company 664-4-14	Unit 1	7/25/1974
Cooling Tower 2	179900 gpm	1	Marley Company 664-4-14	Unit 2	7/25/1974
Hot Side Electrostatic Precipitators	2,800,000 acfm	4	Joy-Western	10507-C- 450 <sup>1</sup>	7/25/1974
Sulfur Dioxide Scrubbers	378,000 scfm	4	Pullman Kellog	10507-C- 454 <sup>1</sup>	7/25/1974
Pulverizer Feeder	145,000 lb/hr	6	Riley Stoker Corporation		7/25/1974
Crusher Dryers	145,000 lb/hr	6	Riley Stoker Corporation		7/25/1974
Coal Pulverizers	145,000 lb/hr	6	Riley Stoker Corporation		7/25/1974
<i>Coal Handling System</i>					
Rotary Car Dumper	100,000 lbs	1	Heyl & Patterson		7/24/1974
Track Hopper	500 tons	1	Heyl & Patterson		7/24/1974
Track Hopper Feeder	750 tph	4	FMC		7/24/1974
Belt Conveyor BC-2A	3000 tph	1	FMC		7/24/1974
Belt Conveyor BC-4	3000 tph	1	FMC		7/24/1974
Belt Conveyor BC-5	1200 tph	1	FMC		7/24/1974
Emergency Hopper	280 tons	1	FMC		7/24/1974

Emergency Hopper Feeder	1000 tph	2	FMC		7/24/1974
Belt Conveyor BC-6	1200 tph	1	FMC		7/24/1974
Crusher Surge Bin	345 tons	1	FMC		7/24/1974
Surge Bin Feeder	1200 tph	2	FMC		7/24/1974
Coal Sampling System	N/A	1	FMC		7/24/1974
Coal Crusher	1200 tph	2	Pennsylvania Crusher		7/24/1974
Belt Conveyor BC-7A and BC-7B	1200 tph	2	FMC		7/24/1974
Belt Conveyor BC-8A and BC-8B	1200 tph	2	FMC		7/24/1974
Belt Conveyor BC-9A, BC-9B, 10A, and 10B	1200 tph	4	FMC		7/24/1974
Coal Silos	825 tons	6	FMC		7/24/1974
Crusher House Dust Collector (DC-2)	16,200 CFM	1	Johnson March		7/24/1974
Transfer Air Unit 1 Dust Collector (DC-3)	18,000 CFM	1	Johnson March		7/24/1974
Transfer Air Unit 2 Dust Collector (DC-4)	12,000 CFM	1	Johnson March		7/24/1974
Unit 1/Unit 2 silos Dust Collector (DC-5a-f)	2,000 CFM	6	Johnson March		7/24/1974
<i>Coal Mixing System</i>					
Belt Conveyor BC-3A	3000 tph	1	Continental Conveyor and Equip.		7/24/1974
Traveling Boom Stackers	3000 tph	1	Stephens-Adamson		7/24/1974
Rotary Plow Feeders	600 tph	3	Continental Conveyor and Equip		7/24/1974
Belt Conveyor BC-3B	1200 tph	1	Continental Conveyor and Equip		7/24/1974
Belt Conveyor BC-3C	1200 tph	1	Continental Conveyor and Equip		7/24/1974
Transfer Hopper CM1	40 tons	1	N/A		7/24/1974
Belt Feeder CM1	1200 tph	1	N/A		7/24/1974

Sample Building Extention Dust Collector	15,000 CFM	1	Johnson March	TBD	7/24/1974
<i>Fly Ash System</i>					
Fly Ash Storage Silos	62,800 ft <sup>3</sup>	2	Allen-Sherman-Hoff		7/24/1974
Fly Ash Storage Silos Dust Collectors	2375 CFM	10	Flex-Kleen		7/24/1974
Fly Ash Receiving Silos Dust Collectors	15,000 CFM	1	Scientific		2002
<i>Limestone Handling System</i>					
Limestone Truck Unloading Hopper	30 tons	1	McNally Pittsburgh		7/24/1974
Limestone Truck Unloading Hopper Feeder	60 tph	1	General Kinematics		7/24/1974
Limestone Storage Pile Reclaim Feeders	60 tph	2	General Kinematics		7/24/1974
Limestone Belt Conveyor BC-101	60 tph	1	McNally Pittsburgh		7/24/1974
Limestone Belt Conveyor BC- 101A	60 tph	1	McNally Pittsburgh		7/24/1974
Limestone Belt Conveyor BC-102	23 tph	1	Barber Greene		7/24/1974
Limestone Belt Conveyor BC-103	23 tph	1	Barber Greene		7/24/1974
Limestone Hammermill Crusher A	23 tph	1	Pennsylvania Crusher		7/24/1974
Limestone Hammermill Crusher B	23 tph	1	Pennsylvania Crusher		7/24/1974
Limestone Bucket Elevator	22 tph	1	Rexnord		7/24/1974
Limestone Storage Silo	300 tons	1	Hogan Mfg.		7/24/1974
Limestone Storage Silo Dust Collector	7000 CFM	1	Johnson March		7/24/1974
<i>Other Control Equipment</i>					

Sandblast Building Baghouse	N/A	1	N/A		2001
Lime Silo Baghouse	300 CFM	1	Peabody		7/24/1974
Soda Ash Silo Baghouse	300 CFM	1	Peabody		7/24/1974
Weld Shop Baghouse	N/A	2	Torit		N/A
Paint Booth Filter	N/A	1	N/A		N/A

N/A = Not applicable

1. Purchase Order Number

2. Model Number

3. Specification Number

Steam Unit	NO <sub>x</sub> Monitor	SO <sub>2</sub> Monitor	CO <sub>2</sub> Monitor	Opacity Monitor	Flow Monitor
Unit 1	TECO 42C	TECO 43C	TECO 41C	EMS 1304	Panametrics Model CEM 68- 29-2201-0 Serial #225
Unit 2	TECO 42C	TECO 43C	TECO 41C	EMS 1304	EMRC DP- 60/75 Mark 2

## ATTACHMENT “D”: PHASE II ACID RAIN PROVISIONS

Air Quality Control Permit No. 30732  
for  
*Salt River Project, Coronado Generating Station*

### I. Statement of Basis

Statutory and Regulatory Authorities: In accordance with Arizona Revised Statutes, Title 49, Chapter 3, Article 2, Section 426.N, and Titles IV and V of the Clean Air Act, the Arizona Department of Environmental Quality issues this Phase II Acid Rain Permit pursuant to Arizona Administrative Code, Title 18, Chapter 2, Article 3, Section 333 ( A.A.C. R18-2-333), “Acid Rain”.

### II. SO<sub>2</sub> Allowance<sup>†</sup> Allocations and NO<sub>x</sub> Requirements for Each Affected Unit

		2005	2006	2007	2008	2009	2010	2011
<b>Unit 1</b>	SO <sub>2</sub> allowances under Tables 2, 3, or 4 of 40 CFR part 73	5733*	5733*	5733*	5733*	5733*	5199*	5199*
	NO <sub>x</sub> limit	<p>Pursuant to 40 CFR 76.8(d)(2), Arizona Department of Environmental Quality approves a NO<sub>x</sub> early election compliance plan for Unit 1. The compliance plan is effective for calendar year 2000 through calendar year 2007. Under the compliance plan, the unit’s annual average NO<sub>x</sub> emission rate for each year, determined in accordance with 40 CFR Part 75, shall not exceed the applicable emission limitation, under 40 CFR 76.5(a)(2) of 0.50 lb/MMBtu for wall fired boilers. If the unit is in compliance with its applicable emission limitation for each year of the plan, then the unit shall not be subject to the applicable emission limitation, under 40 CFR 76.7(a)(2), of 0.46 lb/MMBtu until calendar year 2008.</p> <p>In addition to the described NO<sub>x</sub> compliance plan, this unit shall comply with all other applicable requirements of 40 CFR Part 76, including the duty to reapply for NO<sub>x</sub> compliance plan and requirements covering excess emissions.</p>						

		2005	2006	2007	2008	2009	2010	2011
<b>Unit 2</b>	SO <sub>2</sub> allowances under Tables 2, 3, or 4 of 40 CFR part 73	5903*	5903*	5903*	5903*	5903*	5465*	5465*
	NO <sub>x</sub> limit	<p>Pursuant to 40 CFR 76.8(d)(2), Arizona Department of Environmental Quality approves a NO<sub>x</sub> early election compliance plan for Unit 2. The compliance plan is effective for calendar year 2000 through calendar year 2007. Under the compliance plan, the unit's annual average NO<sub>x</sub> emission rate for each year, determined in accordance with 40 CFR Part 75, shall not exceed the applicable emission limitation, under 40 CFR 76.5(a)(2) of 0.50 lb/MMBtu for wall fired boilers. If the unit is in compliance with its applicable emission limitation for each year of the plan, then the unit shall not be subject to the applicable emission limitation, under 40 CFR 76.7(a)(2), of 0.46 lb/MMBtu until calendar year 2008.</p> <p>In addition to the described NO<sub>x</sub> compliance plan, this unit shall comply with all other applicable requirements of 40 CFR Part 76, including the duty to reapply for NO<sub>x</sub> compliance plan and requirements covering excess emissions.</p>						

† As defined under 40 CFR §72.2, "Allowance" means an authorization by the Administrator under the Acid Rain Program to emit up to one ton of sulfur dioxide during or after a specified calendar year.

\* The number of allowances actually held by an affected source in a unit account may differ from the number allocated by U.S. EPA. Neither of the aforementioned conditions necessitate a revision to the unit SO<sub>2</sub> allowance allocations identified in this permit (See 40 CFR 72.84).

### III. Comments, Notes and Justifications

SRP has early-elected for NO<sub>x</sub> requirements on Units 1 and 2.

### IV. Permit Application

The Permittee, and any other owners or operators of the units at this facility, shall comply with the requirements contained in the attached acid rain permit application (OMB No. 2060-0258) signed by the Designated Representative Nils I. Larson on 12/11/95.